STATION LIBRARY COPY

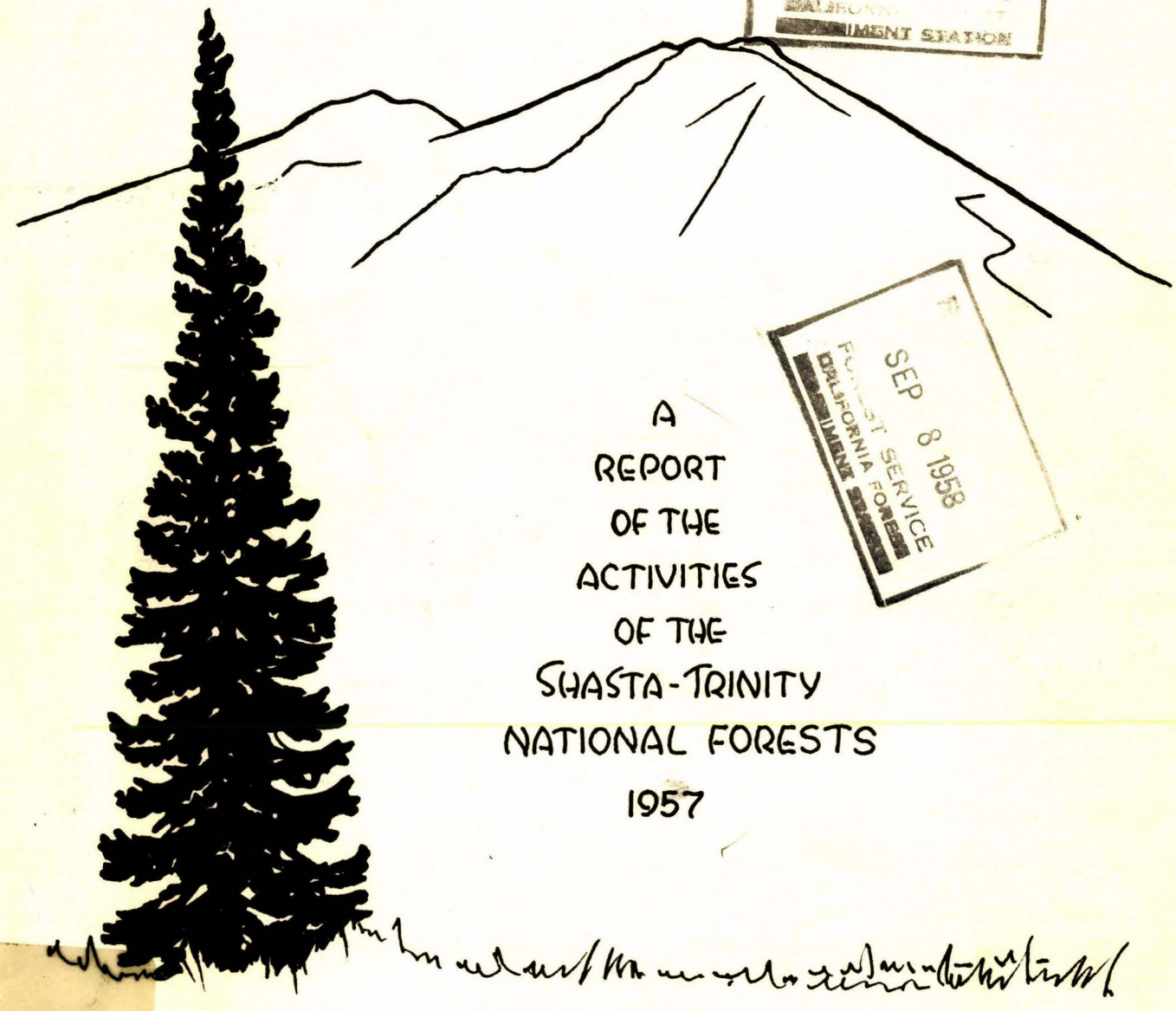
~~CAHW~~

RMO

MGL - ~~Boise Loc. List~~

U.S. Forest Service
Pacific Southwest Library and Information Center
1323 Club Drive
Vallejo, CA 94592-1110

AUG 27 1958
FOREST SERVICE
CALIFORNIA FOREST
EXPERIMENT STATION



SEP 8 1958
FOREST SERVICE
CALIFORNIA FOREST
EXPERIMENT STATION

A REPORT OF THE ACTIVITIES OF THE SHASTA-TRINITY NATIONAL FORESTS 1957

U. S. DEPARTMENT OF AGRICULTURE

FOREST SERVICE

CALIFORNIA REGION

SD
11
.A59
F4
S5
1957

Property of
National FS Library
USDA Forest Service
240 W Prospect Rd
Fort Collins CO 80526

D. B. 2-2-96

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
SHASTA-TRINITY NATIONAL FORESTS

ADDRESS REPLY TO
FOREST SUPERVISOR
AND REFER TO

760 PARKVIEW AVENUE
REDDING, CALIFORNIA

Dear Friend:

Enclosed for your information are some information highlights on operation of the Shasta-Trinity N. F. during 1957.

Activities on the Shasta-Trinity N. F. continued to be many and varied and increasing in quantity during the year 1957. Along with the increased activity came increased problems of management. These presented new challenges and opportunities to manage the National Forests for the "greatest good to the greatest number".

Forest receipts continued to exceed the operating expenditures and will probably grow to an even wider margin in the coming years.

Even though there was somewhat of a decline in the lumber market, the cut of timber on the Shasta-Trinity was maintained at a high rate. Sales offerings were first announced in February at the Sales Program Meeting between the operators and Forest Service personnel. All units offered were sold during the year. Each sold at a rate in excess of advertised prices, with one exception. Advertised prices did, however, reflect the selling prices of lumber and were somewhat lower than in the year 1956. Timber stand improvement work continued at about the same pace as the previous year in which primary efforts were devoted to pruning and planting. The planting program, in particular, was increased over 1956 but still is only a token when compared with the actual need to make all suitable lands fully productive.

The number of man-caused fires continues to grow, causing us much concern. However, the picture is not as black as it might appear to be, as when consideration is given to the increased use, the number of man-caused fires per unit of use is slowly decreasing. There are obviously, however, opportunities for a

much more intensive fire prevention program. Particularly significant was the increase in railroad fires during 1957. Changes in the method of financing made during the year reduced the number of prevention personnel on the forests. All indications are that there is economic justification for an increase in prevention personnel. One advent of 1957 in the fire section was the installation of a 26-man smokejumper unit at Redding. It is of course difficult to document specific savings realized by the establishment of this group, as to do this it is necessary to estimate the probable additional costs of fires they specifically kept from becoming larger through fast initial attack. There is, however, substantial evidence that on at least 3 fires this year, and each of these controlled as small ones, estimated savings for the season more than paid for the crew. The jumpers are available to other forests, the State Division of Forestry, and other protection agencies for initial attack and follow up on remote fires.

Exclusive of two incendiary fires, which were part of a series set in the Beegum Area on both National Forest and State protected land, the burned acreage this season was below the five-year average.

Engineering wise, the year was most active. In the road section, it saw the completion of the Gilman Road, opening up the Shasta Lake working circle where a timber sale will be made early in the spring of 1958. Also of importance was the final contract for completion of the Everett Memorial Highway, which will facilitate development of the Mt. Shasta Ski Bowl Area. In addition, some 60 miles of high-quality access road were designed through force account and contract methods. There remain, at present, two areas which are not accessible to permit harvesting the allowable cut. One in the New River country in which the road is now surveyed and ready for contracting, and the other in the Big Bend working circle where right-of-way problems are currently being resolved. We were fortunate this last year in being able to start getting our physical plant into shape to handle the vastly increased work load. Two new residences were constructed and we were able to renovate some other below standard housing to make it usable.

Recreation use increased again, roughly 10% during 1957. Disappointment because of the inadequacy of facilities for campers was expressed by many organizations and public bodies during

the year. This public reaction resulted in the review of the situation by Senator Knowland last fall. This gave top recognition to the real problems of adequately providing for minimum needs consisting of good water, adequate sanitation and fire prevention requirements for forest users. We constructed a new 50 unit campground at Hirz Bay, plus 5 smaller campgrounds on the McCloud Arm. Also constructed was a large multiple boat launching ramp and parking area at Hirz Bay. This will ease the boat launching problems. 1958 was the first year under the moderately increased appropriation for "Operation Outdoors". This increase in funds provided some relief to the overcrowded situation on Shasta Lake.

Planning of the Trinity River Project in which the impact of the Project on National Forest lands was studied and completed. Recommendations were made to the Regional Forester for transmittal to the Bureau of Reclamation. This phase of the program had to do with land use planning alone. The next step is activation of the program, working closely with the Bureau of Reclamation. This will call for road relocation and reconstruction and relocation of ranger stations and campgrounds during the next two or three year period. Most of the timber below the water line has been sold for the Bureau by the Shasta-Trinity National Forests.

A complete study was made of organizational problems with the view in mind of providing better service to Forest users and purchasers of forest products. In an attempt to group common problems of management in a more skillful manner, a rather detailed reorganization was instituted and completed during the year. That portion of the Fall River Ranger District which was primarily an east side grazing type, was transfered on a trial basis to the Lassen National Forest where there are thousands of acres of similar types, in the belief they could provide better service to the permittees. Included in the analysis of the over all situation was a breakdown of work loads by activities and by areas. This clearly indicated the need for creation of at least three new ranger districts on the Shasta-Trinity Forests. Two of these were activated at the end of 1957, through reorganization of work loads on the Trinity side of the forest. Another is planned for addition in the not too distant future.

Attached hereto are more detailed reports grouped by activity which may prove of interest to you. In a brief report, such as this, it is of course impossible to cover the activities in detail. If questions arise we will be more than glad to attempt to answer them for you.

Paul Stathem

PAUL W. STATHEM
Forest Supervisor

TIMBER

Despite the unfavorable market conditions the lumber industry made increased demands for National Forest timber. A gain of 12% in volume cut and of 35% in volume sold during the past year was recorded. The upward trend is rapidly approaching full utilization of the allowable annual cut for the combined forests. The 1957 total of 137 million board feet represents 70 per cent of the total allowable cut of 196 million board feet.

A management program to increase this allowable cut includes: restocking, planting and seeding, pruning, thinning and release. These activities are financed in part through cooperative deposits by the timber purchasers under the Knudsen-Vandenberg Act and in part by appropriations by Congress.

Accomplishments in this field for 1957 are:

Area planted - 1014 acres. A total of 324,000 seedling trees.

Brushfields cleared in preparation for planting - 140 acres.

Timber stand improvement work on 2688 acres.

Blister rust check on 16,308 acres.

Ribes eradication on 3,228 acres.

RANGE AND WILDLIFE MANAGEMENT

Management of the forage resources recognizes the needs of both domestic and big game animals and the economies dependent on each. Maximum sustained utilization of the forage resources is possible through proper stocking and seasons of use.

Forage on the Shasta-Trinity National Forest for cattle and sheep brought a revenue of $6,600.00; 25% of this amount was returned to the counties. These receipts represented use by:

Cattle and horses	3,077 head
No. of animal months - C & H	10,960
Sheep	2,286 head
No. of animal months - Sheep	10,278

$3,600.00 was spent on range improvements and analysis work to increase the carrying capacity and improve general management of the grazing allotments. Range game surveys and preparation of management plans is a continuing project.

Importance of the forests as a wildlife habitat is shown in this estimate of big-game populations:

Black-tail and mule deer	41,200
Black bear	3,400

Sportsmen use increased by approximately 40% over 1956, with the following breakdown:

Fishermen	428,000 man-days
Hunters	246,000 man-days
Total	674,000 man-days use

MINING AND SURFACE DETERMINATION

Until 1956 the Forest Service could sell and manage the timber and other surface resources on mining claims within the national forest lands only through written release by the individual claimant. The multiple-use mining law, Public Law #167, has two main provisions. On claims filed subsequent to the date of the act, the surface and sub-surface rights are separated. That is, the Forest Service retains the right to manage the surface resources. On claims in existence prior to the date of the act, a method by which surface and sub-surface rights may be separated is provided. Under this procedure the claimant retains all rights to minerals and is assured of the timber necessary to operate his claim, up to the amount of timber on the claim or its equivalent if some volume has been removed from the claim in managing the stand.

The Forest Service retains the obligation to manage the timber and other surface resources on all claims except those for which the claimants surface rights are acknowledged. Under this statute, a Surface Rights Determination program was initiated. Field examination on 10% of the area planned for inclusion in this program was completed in 1957.

Interest and operations on mineral leases, mining claims and permits involving iron, copper, chrome and gold ores and limestone deposits have continued throughout the year. Contests on two mining claims have been successful. Several Mining Claims have been clear listed and will soon go to patent.

TRINITY RIVER PROJECT

The project is well along in the first year of actual construction. Completed portions include: clearance of the Roycroft Borrow Pit; construction of the diversion tunnel around the dam site; a high-gear access road to the scene of construction; and preparation of the Trinity Dam site to bedrock. The eleven mile tunnel to the Whiskeytown Reservoir has been started. Three sales of timber within the eventual high water line of Trinity lake have been made; the first, of 4-5 million board feet, is almost completed. The remaining volumes that will be inundated are scheduled for sales in 1958 and 1959.

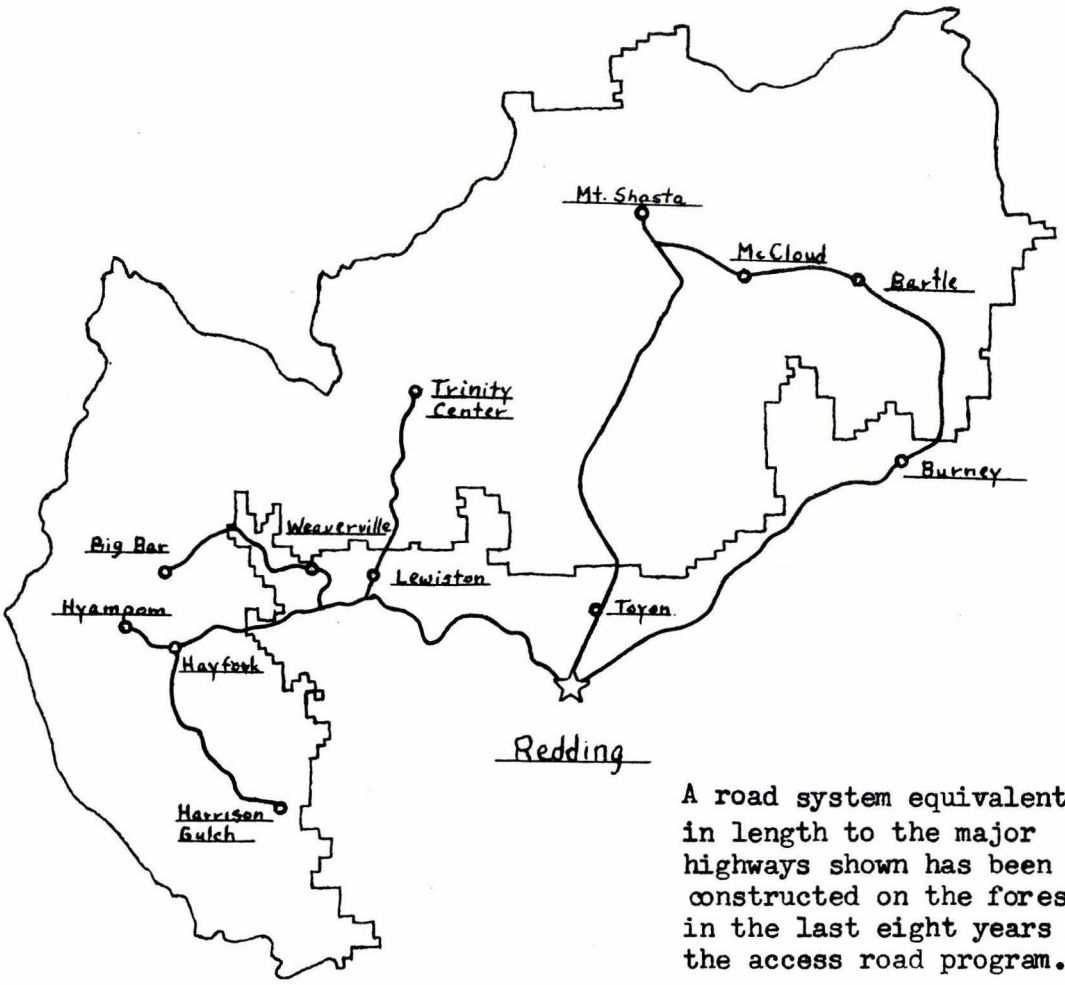
FIRE

With a short fire season and somewhat favorable weather conditions this should have been a banner year for the fire team. Unfortunately, an arsonist near Beegum accounted for 95% of the burned acreage in two sets, which destroyed 2080 acres of valuable timber and watershed. Due to the low number of lightning caused fires, the seasonal total of fires from all causes (170), was down to 70% of the five year average (233). The need for more aggressive prevention effort is pin-pointed in this analysis of man-caused fires:

Cause	1957	5-year Average
Railroad	28	7
Incendiary	5	2
Lumbering	6	7
Smoker	23	28
Miscellaneous	37	28
Total man-caused	99	72

Extensive use of the newly developed aerial arm, through initial attack and support, played an important part in holding fire losses to a minimum. Aircraft use, broken into the following six categories, totaled 275 flights:

Type of Activity	Use
Smokejumpers	14 fires
Cargo drops	15 fires
Helicopter	14 fires
Aerial tankers	4 fires
Reconnaissance	51 flights
Transportation of personnel to off-forest fires	177 flights



A road system equivalent in length to the major highways shown has been constructed on the forests in the last eight years of the access road program.

Sixty-seven miles of high-quality roads, with an appraised value of $2,178,000 were added to the National Forest system in 1957. Cost of construction was divided about evenly between the government and purchasers of National Forest timber sales. Road-building costs borne by purchasers are offset by reduced stumpage prices.

An accelerated program of trail rehabilitation saw addition of three mechanized trail builders and an increase in appropriations to counter the growing recreation use in back-country areas. The two Forests are criss-crossed by 1647 miles of trails.

A natural-gas pipeline, built by Pacific Gas and Electric Company, crossed the Forest from Platina to Mad River. This project will terminate in Eureka; the 35 miles constructed across the Shasta-Trinity are valued at $175,000. Construction of such a large project over N. F. lands has required that Forest Service engineers work closely with the company to develop construction methods which will minimize erosion hazards.

RECREATION

A notable increase in commercial permits on Shasta Lake and at Mount Shasta, plus an increase in the number of summer home permits, occurred this year.

Continued and increased pressures on recreational facilities, particularly camping and boating, have dominated the picture in this resource. The demand continues to tax present facilities even though rehabilitation and construction money under "Operation Outdoors" has bettered the picture.

These trends could best be shown in the Shasta Lake Recreation Area:

Use Figures Indicate	Man-days Use		
	1949	1956	1957
Visits to Shasta Dam	23,000	296,000	338,000
Campgrounds and Picnic Areas	18,000	135,300	155,000
Total Recreation Use--including highway travel	76,200	2,610,600	2,873,034

In attempting to keep pace with this situation, allotments for recreational type construction have followed this pattern:

	1954	1957	1958
Total recreation money for Redding District	$5,900	$17,500	$57,800

Aside from normal maintenance and rehabilitation of present facilities, new construction this year brought over a 100% increase in the number of campground units around the lake. The present total of 281 units will be further supplemented in the next five years under Operation Outdoors.

The illustration of Shasta-Lake Recreation Area is a good example of what is in store for us on the Trinity River Project.

The recreational development program continues in the planning stages; construction will follow completion of access roads and establishment of the Lakes. Realization of the potential this area holds, after the example of Shasta Lake, has prompted intensive preparation for fullest use of this resource.

PERSONNEL

Management and protection of the resources of the Shasta-Trinity are accomplished by a team of professional and seasonal employees that varies between 230 and 440 in number.

A distribution by general activities shows:

FUNCTION	NO PERSONNEL
Administration	26
Fire Control	174
Engineering	86
Timber Management and other	47
Zone Equipment Depot	30
Smokejumpers	29
Administrative Services	46

The total income of this group averaged $132,000 per month for the last six months of 1957.

Considerable improvement was made in the field of safety this season but the accident rate continues to be a serious problem. A program of intensified training in accident prevention has been initiated to improve on the gains of 1957. A comparison of the past two years points out this progress:

	Man-hours Worked	Lost-time Accidents	Frequency*
1956	633,544	19	29.99
1957	650,383	9	13.84

*Frequency = $\frac{\text{No. LTA x 1,000,000}}{\text{Man hours worked}}$

CONDENSED STATEMENT RECEIPTS AND EXPENDITURES

FISCAL YEAR 1957 (July 1, 1956 - June 30, 1957)

	RECEIPTS	EXPENDITURES	
		Operating	Investments
National Forest & L. U. Proj Protection & Management		$560,433.19	$ 58,666.63
Fighting Forest Fires		376,108.90	
Forest Pest Control		3,604.37	
Blister Rust Control		30,279.95	1,738.57
Brush Disposal		19,329.16	810.75
Cooperative Range Improvements		5.18	510.65
Cooperative Work (State & Private)		215,499.17	191,694.14
Roads & Trails - Construction and Maintenance		252,436.29	1,049,018.20
National Forest Receipts			
Forest Reserve Fund:			
Shasta	$ 233,120.26		
Trinity	1,625,263.24		
	$1,858,383.50		
Other Misc. Receipts:			
Shasta	$ 7,319.26		
Trinity	955.65		
	$ 8,274.91		
TOTAL SHASTA-TRINITY FORESTS	$1,866,658.41	$1,457,696.21	$1,302,438.94

****

Cash receipts exceeded Operating Expenditures by $408,962.20

25% of Forest Reserve Fund receipts returned to counties for roads and schools- $464,595.87

Humboldt County	$ 1,699.22
Modoc County	264.69
Shasta County	34,117.75
Siskiyou County	23,926.14
Tehama County	39,388.00
Trinity County	365,200.07

U.S. Forest Service
Pacific Southwest Library and Information Center
1323 Club Drive
Vallejo, CA 94592-1110

RECEIVED
APR 15 1958
FOREST SERVICE
CALIFORNIA FOREST
EXPERIMENT STATION

RECEIVED
SEP 10 1958
FOREST SERVICE
CALIFORNIA FOREST
EXPERIMENT STATION